



INEL Reporter

A bimonthly newsletter discussing how wastes are managed at the Idaho National Engineering Laboratory


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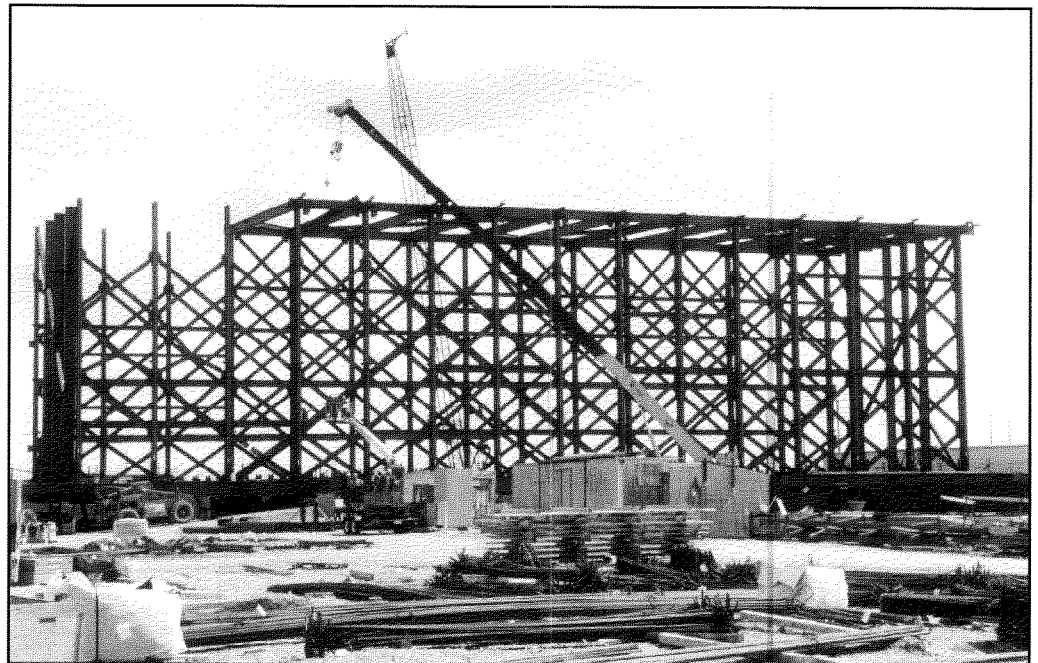
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 Environmental
Restoration

 Waste
Management

Construction under way on Pit 9 retrieval facility

While construction activities continue on the Pit 9 treatment facility, workers have begun to erect the retrieval facility, where buried mixed transuranic waste will be excavated from the 1-acre, inactive disposal pit at the Radioactive Waste Management Complex.



The retrieval facility, where the first stage of physical separation of waste and soil will take place, will be a double-contained, negative-pressure building. Waste handling and retrieval tools are being built and tested in Houston by Sonsub, a subcontractor to Lockheed Martin Advanced Environmental Systems, before being transported to the Idaho National Engineering Laboratory. When fully operational, the retrieval building will span the width of the pit and move the length of the pit on a rail system. Excavation will be performed through the use of remote control, and no personnel will enter the facility except to perform maintenance activities while retrieval is halted.

The remediation involves three stages: retrieval, where waste and soil will be physically separated using a remote-control excavation system; treatment,

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Pit 9 Facts

Pit 9, located at the Radioactive Waste Management Complex, is a pit measuring about 127 x 379 feet. Wastes, received primarily from the DOE Rocky Flats Plant in Colorado, consist of sludge (contaminated with a mixture of transuranics like plutonium and americium and organic solvents) and assorted solid waste and cardboard boxes containing empty contaminated drums. It is estimated that 250,000 cubic feet of waste and contaminated soil could require treatment.

Transuranic-Contaminated Waste

Waste contaminated with alpha-emitting radionuclides that have a greater atomic weight than uranium and a half-life greater than 20 years (e.g., plutonium and americium).

where contaminated soils and material will be treated to concentrate transuranic materials into a smaller volume; and plasma melter stabilization, which is used to melt the waste into a stable rock form resembling obsidian.

In the retrieval facility, a dig-face monitor will be lowered near the waste and soil to monitor for plutonium and other transuranic materials. Gas-tight boxes used to collect the soil and other material will be moved on a trolley system. Waste and soil will be boxed out of the retrieval facility separately and carried in sealed trucks to the treatment facility, which is located west of the retrieval facility.

Waste materials larger than 1 inch in diameter that contain greater than 10 nanocuries per gram of transuranics will be shredded in the treatment building and sent directly to the plasma melter.

Contaminated soils and material smaller than 1 inch in diameter that contain greater than 10 nanocuries per gram of transuranics will be treated in the treatment facility using solvent extraction and chemical leaching processes to remove organics and break down soil particles to remove any plutonium and americium. Cleaned soil, which is less than 10 nanocuries per gram and meets hazardous waste treatment standards specified in the Pit 9 Record of Decision, will be returned to the pit, and the extracted contaminants will be sent to the plasma melter for stabilization.

LMAES was scheduled to test the completed system in August, but delays will push the testing into next year.

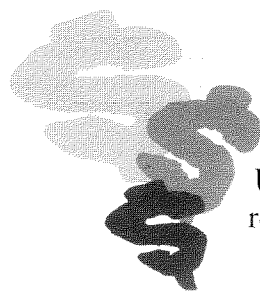
"The complexity of this project, and the fact that this is the first time a cleanup of this nature has been attempted, have caused some delays," said Brian Anderson, Pit 9 project manager for the U.S. Department of Energy, Idaho Operations Office. "But I want to emphasize that we've made a tremendous amount of progress on this project."

Study results in big savings for transuranic waste program

When the Governor's Agreement was signed late last year, allowing spent nuclear fuel shipments into the state of Idaho in exchange for acceleration in waste management and environmental restoration activities — including the removal of transuranic waste — an analysis needed to be completed to identify the impacts of the agreement on certain programs at the INEL.

The transuranic waste program evaluated the requirements of the agreement and wrote a report detailing the costs of meeting all the milestones. This report was submitted to the DOE-ID. The price tag — \$140 million over the next seven years.

Upon review, DOE-ID challenged Lockheed Martin Idaho to reevaluate the study, question assumptions, push back on





Approximately 65 percent of the Department of Energy's current volume of transuranic waste is stored at the Radioactive Waste Management Complex.

"business as usual" and put together an approach that reflects declining budgets that are expected over the same period of time.

The Transuranic Value Engineering Team, a group of 12 individuals, with varied experience was assembled. The team consisted of Lockheed Martin Idaho personnel, DOE-ID personnel and three external experts who possessed knowledge unavailable in-house.

The team went to work and within two weeks developed a revised study that showed innovative process improvements and a cost savings of \$49.5 million over the next six years.

Fred Hughes, Lockheed Martin Idaho RWMC facility manager and team leader, says the team focused on one problem — how to meet the requirements of the Governor's Agreement within the constraints of the proposed budget for the next five years.

To evaluate this problem, Hughes defined the playing field and boundaries for the team. Maximize use of existing facilities, minimize new construction, maximize use of the existing work force and temporary processes/systems and automate/reduce cycle times where possible.

"By thinking outside the box and with very few constraints," Hughes says, "the team revised the transuranic program strategy and developed a plan for meeting the milestones of the agreement."

One milestone in the Governor's Agreement is the removal of 15,000 equivalent drums of transuranic waste by 2002. To come up with this number of containers, Hughes says the team looked at waste already stored in the Resource

Waste Isolation Pilot Plant

The Waste Isolation Pilot Plant, located 26 miles east of Carlsbad, N.M., is a proposed repository for defense-generated nuclear waste remaining from defense-related activities. Waste will be dispositioned in rooms mined 2,150 feet underground in an ancient, stable salt formation.

Conservation and Recovery Act Type-II storage modules. He says approximately 13,700 containers in the Type-II's are anticipated to meet the requirements to go to the Waste Isolation Pilot Plant. The remaining 1,300 containers would come from containers that had been certified for treatment at the Process Experimental Pilot Plant, a facility that never opened.

The team looked at the various processes and how to redesign them to eliminate bottlenecks, minimize drum handling and correct single-point failures.

Hughes explains, "We had to figure out how to identify early in the process containers that might later fall off the chain for various reasons and eliminate them early on to save the cost and time involved in the certification process."

The team also looked at the various risks involved in meeting the milestones and identified them on a probability index. Examples include WIPP not opening in 1998 as planned and the WIPP Waste Acceptance Criteria not being modified to allow some waste that is readily characterized. The risks or assumptions also include elements at the INEL such as construction of the Advanced Mixed Waste Treatment Project and how to provide enough waste for its operation while still getting waste out of the state.

Hughes says all medium to low risk items identified in the final report were accepted and the high risk items factored back into the budget baseline.

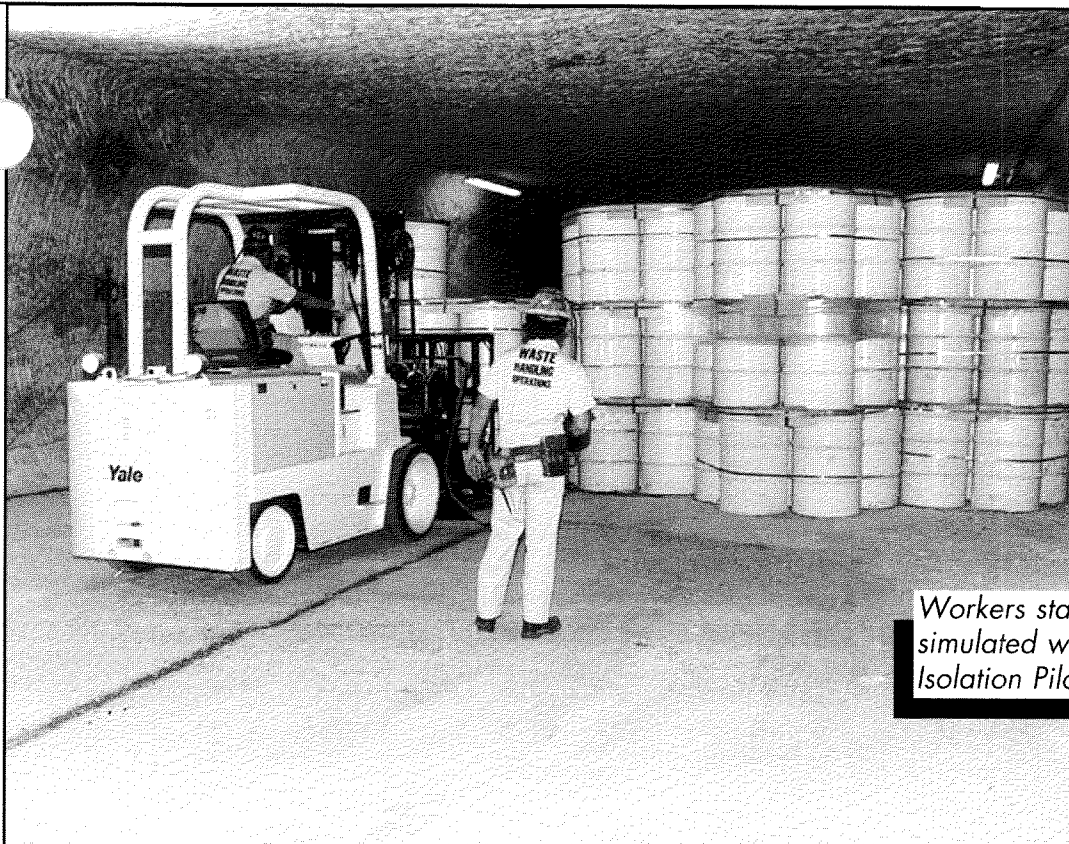
"What we did was push the envelope, accept a level of risk, and implement some significant changes in the way we conduct business," says Hughes. "The end result was a plan that was significantly different than the original, but a plan that meets the commitments in the Governor's Agreement while recognizing the realities of future funding."

DOE closer to solving nuclear waste disposal problem, opening WIPP

DOE is a step closer to solving the nation's nuclear waste disposal problem, meeting another major milestone that will lead to a decision to open the Waste Isolation Pilot Plant in 1998.

The DOE's Carlsbad Area Office submitted phase two of a petition to the Environmental Protection Agency for a No-Migration Determination that will allow radioactive and hazardous-mixed waste disposal at the WIPP. The No-Migration Determination is one of three regulatory approvals needed before the WIPP can open as the nation's first permanent underground repository for nuclear waste.

"Some oversight and regulatory groups expressed skepticism when we announced our aggressive approach to get the WIPP ready for an October 1997 disposal decision," said George Dials, manager of the Carlsbad Area Office. "By submitting the No-Migration petition on time, we have met yet another major milestone established in the WIPP Disposal Decision Plan. We are a step closer to demonstrating compliance with environmental regulations as required by Congress."



Workers stack barrels of simulated waste at the Waste Isolation Pilot Plant.

The No-Migration Variance Petition requires the DOE to demonstrate, within a reasonable degree of certainty, that there will be no movement of hazardous constituents from the WIPP disposal area — for as long as the wastes remain hazardous. Upon approval from the EPA, the DOE will be granted a no-migration variance for WIPP disposal activities.

Phase two of the No-Migration Variance Petition addresses activities after the WIPP is decommissioned. Phase one of the petition, submitted in May 1995, deals with the operational facet of the project.

The Disposal Decision Plan, developed by the Carlsbad Area Office in April 1994, is a time line that guides a variety of WIPP activities including the regulatory/technical process, stakeholder/oversight input, experimental programs and performance assessment, site operations, and waste characterization.

In addition to the No-Migration Variance Petition, the DOE must also obtain a Resource Conservation and Recovery Act Part B permit from the New Mexico Environment Department and certification from the EPA stating that the WIPP meets long-term radioactive disposal criteria.

Finally, public hearings on the WIPP's second Supplemental Environmental Impact Statement are scheduled to begin in early fall at cities near waste generator sites. The second supplement will update information contained in the first Supplemental Environmental Impact Statement, completed in 1990. Generally, this study will evaluate the environmental impacts of waste characterization, treatment, and certification; packaging and transportation; site operations and waste emplacement; and long-term performance of the repository.

Opening on Schedule

Officials at the DOE-Carlsbad Area Office and DOE-ID are confident WIPP will meet its April 1998 opening. A recent General Accounting Office audit examined the ability to meet the 1998 date.

INEL Information Repositories

INEL Technical Library
DOE-ID Public Reading Room
1776 Science Center Drive
Idaho Falls, ID 83415
(208) 526-1185

Marshall Public Library
113 South Garfield
Pocatello, ID 83204
(208) 232-1263

Shoshone-Bannock Library
HRDC Building
Bannock and Pima Streets
Fort Hall, ID 83202
(208) 238-3882

INEL Boise Office
816 West Bannock, Suite 306
Boise, ID 83702
(208) 334-9572

University of Idaho Library
University of Idaho Campus
Moscow, ID 83843
(208) 885-6344

Select documents will be included in the following locations:

Boise Public Library
715 South Capitol Blvd.
Boise, ID 83702
(208) 384-4076

Twin Falls Public Library
434 2nd Street East
Twin Falls, ID 83301
(208) 733-2964

Idaho Falls Public Library
457 Broadway
Idaho Falls, ID 83402
(208) 526-1450

INEL Regional Office

INEL Boise Office
816 West Bannock, Suite 306
Boise, ID 83702
(208) 334-9572

When the DOE meets all applicable regulatory requirements, the Secretary of Energy will decide in October 1997 whether to operate the WIPP as the nation's first underground nuclear waste repository. A positive decision by the Secretary would mean that waste shipments could begin in April 1998.

The WIPP is designed to permanently dispose of transuranic radioactive waste left from the research and production of nuclear weapons. Located in southeastern New Mexico, 26 miles east of Carlsbad, project facilities include disposal rooms excavated in an ancient, stable salt formation, 2,150 feet (almost half a mile) underground. Transuranic waste consists of clothing, tools, rags, and other disposable items contaminated with trace amounts of radioactive elements, mostly plutonium.

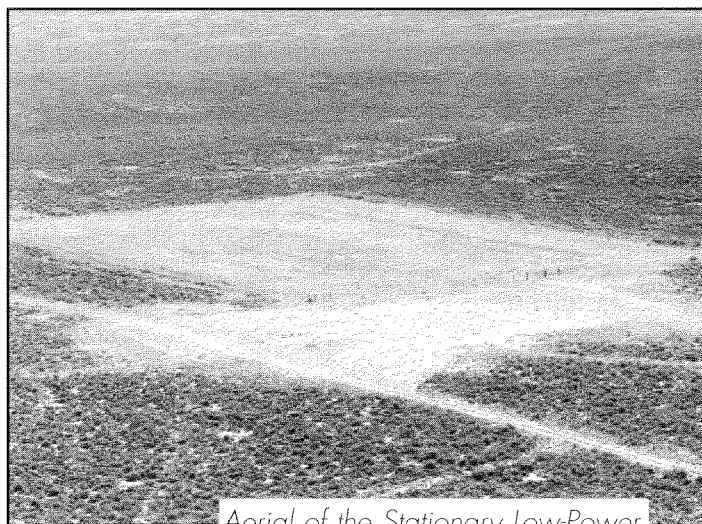
The National Transuranic Waste Program administers nationwide generation/storage site programs for storing, characterizing, packaging, transporting, and disposing of transuranic waste. Defense-generated transuranic waste is temporarily stored at more than 10 major generator/storage sites and several small quantity sites nationwide.

Capping project begins for reactor burial grounds

Two reactor burial grounds at the INEL will be capped this summer to further isolate the contaminated materials from humans and the surrounding environment.

Construction of the caps began in July for the Stationary Low-Power Reactor-1 and Boiling Water Reactor Experiment-I burial grounds. Each site is the location of radioactively contaminated soil and debris resulting from the destruction of a nuclear reactor. The capping project is scheduled to be completed by Oct. 31 at a fixed-price cost of \$661,000.

At the Stationary Low-Power Reactor-1 burial ground, a "bio-barrier" will be used to cover the approximately 600 x 300-foot area. The cover will consist of layers of gravel and cobbles, with large boulders placed on top of the cap. The 120 x 120-foot area of the Boiling Water Reactor Experiment-I burial ground will be covered with large boulders. Both areas were previously covered with natural materials and surrounded by fences.



Aerial of the Stationary Low-Power Reactor-1 burial ground. The area will be capped this summer.

IT Corporation, a Monroeville, Penn., company, will be using on-site materials to construct the caps. In all, 3,000 cubic yards of gravel, 3,000 cubic yards of cobble and 2,500 cubic yards of large boulders will be needed.

Other major components of the selected remedy include recontouring and grading the surrounding terrain to direct surface water runoff away from the caps; conducting periodic radiological surveys of the areas; inspecting and maintaining the caps; restricting access; and restricting land use to industrial applications for at least 100 years following installation of the caps.

Additional information on this project is located in the Administrative Record file for Operable Units 5-05 and 6-01.

Draft baseline risk assessments completed

The Baseline Risk Assessment, a study that examines the cumulative risk of contaminated areas within a Waste Area Group, is complete in draft form for Waste Area Group 2 (Test Reactor Area) and is nearing completion of the draft for Waste Area Group 3 (Idaho Chemical Processing Plant).

Environmental Restoration Program project managers are currently reviewing comments from DOE, EPA and the state of Idaho on the Waste Area Group 2 project. The Waste Area Group 3 document will be submitted to DOE, EPA and the state of Idaho in August 1996 for review and comment. After evaluating comments and making changes to the risk assessment documents, they will be available for public review at the INEL's information repositories.

Potential release sites evaluated during the Baseline Risk Assessment for Waste Area Group 2 included rubble piles, cooling towers, an injection well, french drains and assorted spills and releases to the environment associated with wastewater structures, leaching ponds and underground storage tanks. Fifty-five release sites have been identified within 13 operable units.

For Waste Area Group 3, the Baseline Risk Assessment evaluated contaminated pits, french drains, perched and aquifer water, percolation ponds, spills, storage areas, tanks and an injection well. Ninety-four release sites have been identified within 13 operable units.

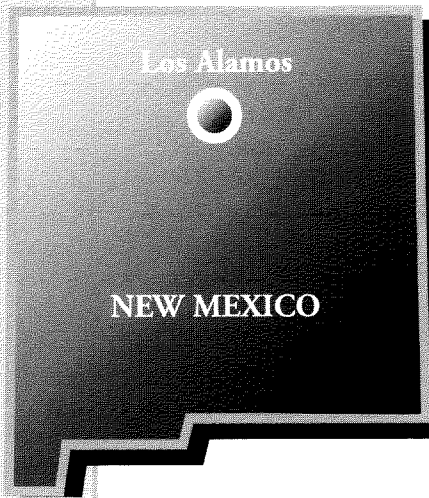
The risk assessment for each Waste Area Group evaluates whether present workers, future workers, future residents and plants and animals could potentially be exposed to harmful levels of contaminants found at, or originating from, the facility.

A follow-up article will highlight the results of the Baseline Risk Assessments once approved by the agencies.

Baseline Risk Assessment

Baseline Risk Assessments, which contain human health and ecological risk evaluations, are one of the first steps in the Superfund process to help determine if future cleanup actions are needed at Waste Area Groups. DOE, EPA and the state of Idaho are scheduled to sign a Record of Decision for Waste Area Group 2 in 1997 and in 1998 for Waste Area Group 3.

INEL to treat waste from Los Alamos



The Idaho National Engineering Laboratory recently received 51 drums (approximately 2,750 gallons) of mixed low-level waste from the Los Alamos National Laboratory. The INEL received the waste under the *INEL Site Treatment Plan* with the approval from the state of Idaho. The Waste Experimental Reduction Facility will repackage and incinerate the waste this month. Upon completion of treatment, the waste residues will be removed from the state and returned to Los Alamos.

The INEL received the waste as part of the Department of Energy's site treatment plans developed for implementation of the Federal Facilities Compliance Act to effectively treat DOE mixed waste. The plans evaluated current capabilities for treatment within the complex and designated certain sites as potential recipients of DOE waste. The plan is to remove residual waste from the state within six months of treatment.

Andy Jacobs of the Technical Support Department at the Waste Reduction Operations Complex, says there were a few obstacles to overcome to be able to receive the waste.

"It is a true coordination effort from both sides," Jacobs says. "At this end, we reviewed the waste profile sheets to verify what we were actually receiving. On the other end, Los Alamos had to work with its DOE field office and the state of New Mexico to get concurrence to ship. We also had to develop plans for handling the waste once it was received at the INEL."

Jacobs attributes the successful receipt of the waste to the staff at WROC and the Waste Technology Planning and Projects Department. "It is not a one-person effort," he says. "All the people involved made it happen."

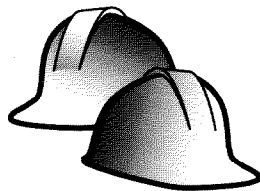
Landfills I, II and III

Used as recently as 1984, the Central Facilities Area Landfills I, II and III accepted municipal-type and industrial wastes generated from INEL operations. Wastes disposed to the landfills included cafeteria garbage, trash sweepings, weeds, grass, asphalt, asbestos and scrap lumber and metal.

Construction begins on landfill covers

Work began in July to cover three industrial landfills at the Central Facilities Area and revegetate the sites as part of a remedial cleanup action.

IT Corporation, the selected contractor, was awarded a \$1.2 million fixed-price contract to construct a native soil cover for Landfills I, II and III, revegetate them, install monitoring wells and erect fences. It is estimated that 130,000 cubic yards of soil will be needed to cover the three landfills. Work will be completed in late October for \$700,000 less than a previous estimate.



DOE, EPA and the state of Idaho agreed to take action to minimize the landfills as a source of potential groundwater contamination and reduce potential risks associated with exposure to the contaminated waste. The selected remedy also includes implementing administrative controls on future land use and posting signs, monitoring the covers and groundwater and inspecting and maintaining the soil covers.

Soil used to cover the landfills will be collected from two INEL locations.

Additional information on this project is located in the Administrative Record file for Operable Unit 4-12.

▼ Four proposals received on Advanced Mixed Waste Treatment Project

The Department of Energy received technical proposals from four different teams interested in building and operating the Advanced Mixed Waste Treatment Project to treat INEL mixed wastes.

Technical proposals were received from the following teams:

▼ Lockheed Martin, M4 Environmental Management, Rust Federal Services, Parsons Engineering Science

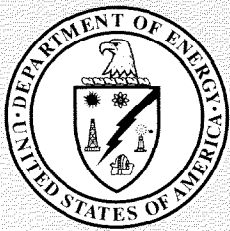
▼ Allied Technology Group Inc., General Atomics, Nukem Nuclear Technologies, Wastren, Canberra, Nondestructive Cleaning, Plasma Energy Applied Technologies, Inc., Fontijne Holland, Envirocare

▼ BNFL Inc., BNFL Engineering Ltd., GTS Duratek, Manufacturing Sciences Corp., Morrison-Knudsen Corp., Pajarito Scientific Corp., Rocky Mountain Remediation Services, Science Applications International Corp.

▼ Scientific Ecology Group, Scientech, Westinghouse, Los Alamos Technical Associates.



An earthen berm covers approximately 110,000 containers of transuranic waste inside the Transuranic Storage Area Retrieval Enclosure. The waste in these containers will be treated at the Advanced Mixed Waste Treatment Project.



The *INEL Reporter* is a DOE newsletter produced bimonthly for the public by the Environmental Restoration and Waste Management programs at the INEL. If you have any questions about the programs or articles contained in this newsletter, please contact any of the following individuals:

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DOE is seeking private sector treatment of at least 65,000 cubic meters of mixed wastes (wastes contaminated with radioactive and hazardous constituents) now stored at the Radioactive Waste Management Complex. In addition, DOE is seeking the option to treat up to another 120,000 cubic meters of DOE-owned wastes from the INEL and other DOE sites.

The mixed waste treatment project is a key element in the spent fuel settlement agreement between DOE and the state of Idaho, which requires DOE to procure treatment capability by June 1, 1997, construction of the facility by Dec. 31, 2002 and operational by March 31, 2003. DOE is planning to complete the procurement by Sept. 30 of this year, nine months ahead of the schedule set by the settlement agreement. Under the agreement, any waste brought into Idaho from other sites must be treated within six months of receipt, and must be shipped out of Idaho for storage or disposal no more than six months after treatment.

The Advanced Mixed Waste Treatment Project is an innovative contracting strategy under which DOE pays only for the volume of waste treated. It is the second largest privatization undertaken in the DOE complex, behind the Hanford waste tank farm remediation.

Idaho university wins environmental competition

The University of Idaho captured top honors in a spring contest where universities competed against one another to develop cleanup methods for some of the DOE's environmental challenges.

Twenty-nine student teams from 23 universities nationwide competed in the 1996 Waste-management Education and Research Consortium Environmental Design Contest at New Mexico State University recently to showcase their solutions to three environmental challenges posed by the consortium. This year's tasks included developing technologies for the remediation of storage tanks containing radioactive and hazardous waste, waste filters with high levels of plutonium and toxic chemicals and waste ponds and vegetation contaminated with hazardous chemicals.

The UI team won \$14,500 in prize money and took home the Rust Geotech traveling trophy for winning the competition



A student prepares a bench scale model as part of an environmental design contest.

overall. More than \$60,000 in prize money and travel assistance, donated by industry sponsors, was awarded to the competing universities.

Students worked on actual contaminated samples (with simulated radionuclides) with their bench-scale models for 48 hours. Judges evaluated the resulting samples to see how successful students were with their cleanup efforts based on standard EPA testing procedures. So well designed are the student-generated solutions that at least a half-dozen of them have been implemented at federal and industrial sites throughout the country.

"These students are in the top of their classes," said Doug Kuhns, the Lockheed Martin Idaho Technologies Company project manager responsible for supporting the INEL. "Everyone at the competition, including the judges, learned a great deal."

The INEL will benefit from the competition by using the students' research results, which included in situ vitrification, plasma processing, soil washing, in situ encapsulation, acid extraction, air sparging, bioremediation, ion exchange, in situ stabilization and solidification and magnetic fluidized beds.

Lockheed Martin Idaho contributions top \$1 million

Lockheed Martin Idaho Technologies Company and its employees surpassed the \$1 million mark in civic and charitable contributions in Idaho since the company took over management and operation of the

Idaho National
Engineering
Laboratory
Oct. 1, 1994.

The total includes over \$450,000 from employees to the United Ways in southeast Idaho in addition to other philanthropic organizations in the region through the Bucks-of-the-Month Club.

Employee contributions are coordinated through the Lockheed Martin Idaho Bucks-of-the-Month Club, which channels money contributed by employees to various philanthropic entities. BOMC decisions are made by a 10-member executive committee comprised of a representative cross-section of the work force. Company contributions are distributed by



Lockheed Martin Idaho supports many events within the community such as the Pocatello Street Festival.

Correction on Definition From Waste Management Citizen's Guide

Low-Level Waste — Waste that contains radioactivity and is not classified as high-level waste, transuranic waste, or spent nuclear fuel.

Mixed Waste — Waste that contains both hazardous waste under the Resource Conservation and Recovery Act and source, special nuclear, or byproduct material subject to the Atomic Energy Act.

a committee set up to evaluate opportunities. That committee is mindful of where BOMC contributions are going. Both Lockheed Martin Idaho and the parent corporation use company profits for civic and charitable giving.

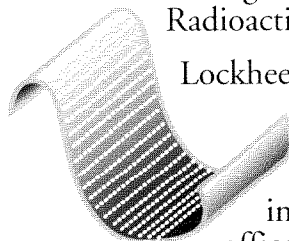
Some of the projects supported were the Colonial Arts Center renovation project, receiving \$200,000. Other contributions include seven trips given by Lockheed to auctions throughout the state to benefit numerous civic and charitable organizations. Other recipients include the City of Idaho Falls for half the cost of a wading pool at the Aquatic Center, Junior Achievement, the Rocky Mountain Elk Foundation, local school district education foundations, YMCA, Idaho higher education and more.

Special events play a big role in Lockheed's strategy to distribute civic and charitable dollars. Events sponsored by Lockheed Martin Idaho invite community participation. Such events include a home run hitting contest prior to an Idaho Falls Braves game, the Lockheed Martin Shootout for Charity that took place at half times of men's basketball home games at Idaho State University and the sponsorship of "Lockstock," an annual autumn dance. Proceeds from the dance, which come through admission receipts in the form of cash and canned goods, are contributed to area food banks to restock their shelves in preparation for the winter months.

INEL NOTES

Licensing agreement signed for Document Information System

Have a question on low-level radioactive waste and need a quick answer? Finding that answer just got easier thanks to the Low-Level Radioactive Waste Document Information System.



Lockheed Martin Idaho Technologies signed a licensing agreement with Exchange/Monitor Publications for exclusive rights to the program. The system provides library-type records on over 1,200 technical and policy documents. It was initially developed for use by state agencies and compact offices by the Department of Energy's National Low-Level Waste Management Program at the INEL.

The system is Windows-based and allows users to access information by entering search words or phrases. These include subjects such as characterization,

public involvement, computer codes, source terms, storage, design, monitoring, treatment, transportation, and so on. Users can also search the files by entering specific state or compact names, personal author surnames, names of companies and organizations producing documents, etc.

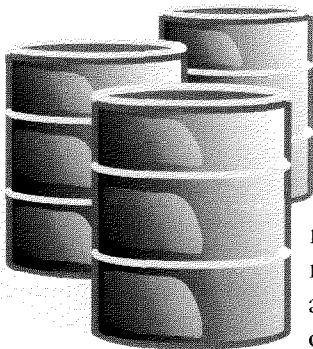
The system includes information on documents produced by the National Program, states and compacts, and by the Nuclear Regulatory Commission.

In addition to simple searches, the PC-based version allows users to print or view pre-formatted, pre-sorted reports of the most commonly requested topics. The PC-based version comes complete on two diskettes with operating software and data files.

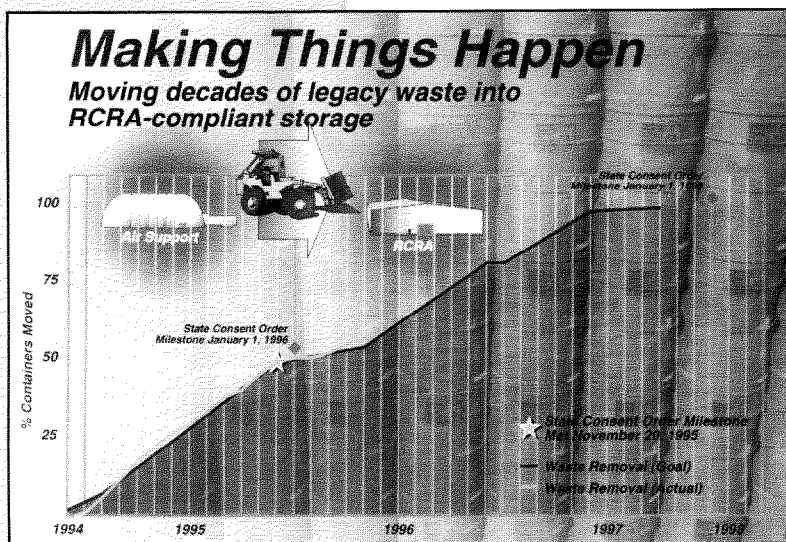
A limited version of the system is available over the Internet at <http://www.asksam.com/radwaste>.

Pinholes found in barrels at RWMC

During routine Resource Conservation and Recovery Act inspections at the Radioactive Waste Management Complex, a Lockheed Martin Idaho technician noticed rust spots on a number of 55-gallon containers of transuranic waste. The containers showing the rust spots were pulled from storage and placed into protective 83-gallon containers.



No contamination has been detected on the external surfaces of any containers with the rust spots nor has any radioactive material been released to the environment. This situation appears to involve interaction of materials but does not pose a threat to the environment a violation of environmental laws. A technical investigation has been completed, a plan of action developed and discussions with the state of Idaho initiated.



RWMC ahead of schedule

Workers at the RWMC continue to surpass milestones established for the reconfiguration of waste containers. The containers must be moved from the older air support buildings into Resource Conservation and Recovery Act-compliant storage modules. The milestones were established under a consent order with the State of Idaho.

Currently 24,400 or 70 percent of the containers have been reconfigured. The project is three weeks ahead of schedule and \$800,000 under budget, reinforcing the Radioactive Waste Management Complex's commitment to do things faster, cheaper and more efficiently.

Notice of Violations

Lockheed Martin Idaho Technologies Company continues to work with the state of Idaho Department of Environmental Quality to resolve issues identified in a Notice of Violation issued in March. To date, two meetings have been held. One to clarify technical issues and a second to further the technical discussions. Resolution of the Notice of Violation is a high priority to ensure compliance with environmental regulations.

Four of the 61 individual counts identified involve the Waste Reduction Operations Complex for manifesting radioactively contaminated lead as a hazardous waste during shipment for decontamination. Information has been forwarded to DOE-ID that the shipment was legal and proper. The information has been submitted to the state of Idaho and the issue is being negotiated.

Contaminated water to be treated

The INEL is proposing to use an ion exchange process, similar to that of a water softener, to treat about 13,000 gallons of mercury-contaminated water that is a waste product of an earlier cleanup action.

A portable water treatment system developed at the INEL's Waste Reduction Operations Complex may be used to filter mercury from the water and capture the heavy metal in the resin material. Mercury levels in the water are approximately 60 parts per million.

The contaminated water was generated when the INEL treated approximately 500 cubic yards of mercury-contaminated soil and debris last spring using retort

technology. Initially, water was sprayed on the soil and debris to keep dust levels low prior to being placed in containers and treated. The water was collected in the vapor recovery unit of the retort system.

WERF Update

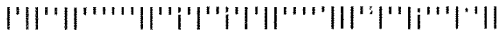
The Waste Experimental Reduction Facility has sized 15,928 cubic feet and compacted 17,160 cubic feet of low-level waste since Oct. 1, 1995.

The sixth mixed low-level waste incineration campaign was recently completed. Cumulative totals for Fiscal Year 1996 for incineration are 10,784 cubic feet (82,112 pounds) of mixed low-level waste and 25,190 cubic feet (149,081 pounds) of low-level waste.

Waste Experimental Reduction Facility

The Waste Experimental Reduction Facility at the INEL is involved in volume reduction activities. These activities include incineration, compaction and sizing.

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